REMARKS

Claims 1-15 are active in the application.

Claims 1-12 and 15 were rejected under 35 USC 102(e) as being anticipated by US Patent 6,301,709 to Warmink. This rejection is respectfully traversed.

As explained in the prior response, the present invention provides a system for updating software in a processor that is stuck in a fault condition. In the present system, a second processor monitors a first processor for a fault (e.g. fatal bugs or software errors) that stop the operation of the first processor. After the second processor detects such a stop in operation, the second processor triggers a compulsory reset of the first processor and then reinstalls error-free software.

In the present invention, monitoring is preferably accomplished by transmitting an inquiry signal from the second processor to the first processor. Inquiry signals are sent at predetermined time intervals. When operating normally, the first processor replies to each inquiry signal. Reception of the response signal indicates to the second processor that a fault has not occurred. If a fault occurs in the first processor, the first processor is rendered unable to respond, and no response is received by the second processor. When a fault is detected in this way, the second processor transmits a compulsory reset signal to the first processor, causing it to reset. Then, error-free software is sent to the first processor. In this way, the present invention allows repair and correction of corrupted software in the first processor, even if the first processor cannot communicate. These aspects of the present invention are discussed in detail at page 13, line 20 through page 14, line 17 and page 17, line 25 through page 18, line 12.

It is important to note that the second processor will reset and reload new software into the first processor only when the first processor is "crashed" and unable to generate response signals, which indicates a fault. In the present invention, a "fault" is understood to be an erroneous circuit condition that prevents the first processor from operating, and therefore from generating response signals.

These features are expressed in claim 1, which requires that the second processor "executes an update control of said program when a fault of said first processor is detected". These features are also expressed in claim 12, which requires the step of

"transmitting a compulsory reset signal from said second processor to said first processor to stop an operation of said first processor when said response pulse can not be detected within a predetermined period". In the present invention, the first processor is determined to be faulty when it fails to respond to inquiry signals.

The Examiner argues:

(1) That Warmink teaches fault detection, and that checking the state of a signal switch or status of software is equivalent to fault detection in the present invention.

(2) That Warmink teaches disclosing transmitting (sic) data when signal pack did not receive signal (response not detected), and that this is equivalent to transmitting a compulsory reset signal when response cannot be detected.

The undersigned is respectfully of the position that these arguments and conclusions, in addition to others set forth in the office action, are wrong, and that Warmink does not anticipate the claimed invention.

Regarding argument (1), it is important to understand that, in the present invention, a "fault" is an erroneous state of the first processor that renders it unable to generate response signals. Operating an old or outdated version of software is not a "fault". The "fault" state is an error that prevents operation of the processor. This is clearly and repeatedly explained in the present specification which describes the fault state as a state in which the first processor cannot generate response signals (see p. 12, lines 21-23, p. 13, lines 9-12, p. 13, lines 20-27, and p. 15, lines 13-18). In the art, a "fault" condition is known as a "crash" which is familiar to computer users. Additionally, the American Heritage Dictionary of the English language defines "fault" as a "defect in a circuit or wiring" (copy attached). Similarly, Wikipedia online (www.wikipedia.org) states: "fault is defined as an abnormal condition or defect at the component, equipment, or sub-system level which may lead to a failure." (copy attached) Both these definitions, and the description of the term "fault" in the present specification, contradict the Examiner's assertion that operating an old version of software (as described in Warmink) is equivalent to a "fault".

The Examiner argues that "checking the state of the [hardware] signal switch (in col. 4, lines 12-17) for current software" is equivalent to fault detection. This is not correct. Detecting the hardware switch setting of Warmink bears no relation to fault

detection as described in the present invention. Thus, there is a readily understandable difference between processor fault detection (inability to generate response signals) in the present invention, and software version detection or hardware switch setting detection as described in Warmink, and the claim language in claims 1 and 12 clearly distinguish the claimed invention from that which is taught in Warmink.

In Warmink, the hardware switch is checked over the hardware switch signal line. The hardware switch determines if a processor is able receive updated software. The hardware switch signal is effectively an "enable" signal that enables the processor to receive updated software. The hardware switch is provided because sometimes it is desirable for a processor to operate with an old version of software. This is described in Warmink at col. 3, lines 23-26, which state: "Other embodiments of this invention cause a transfer of newer information from one circuit pack to another only if a hardware signal indicates that the transfer should occur." Similarly, col. 5, lines 3-6 of Warmink explain that "If either the version information received is older (or the same as) the version information stored, or the hardware switch signal is off, then that pack will not initiate an update of its memory." Col. 3, lines 36-40 goes on to explain that "It is clear that for testing or other reasons an older version of data may be beneficial in a system, and this semi-automatic functioning provides a means by which upgrading of older data is possible but not automatic." So, in col. 3, lines 23-40, it should be recognized that Warmink is teaching that the hardware switch allows a person or computer to decide whether or not a processor is enabled to receive updated software. In some cases an older software version is desired and the hardware switch should therefore be set to "off". Nowhere does Warmink teach or suggest that the hardware switch setting is determined by the operating condition or error status of the processor. Thus, the hardware switch setting does not indicate a fault or any other error within a processor or anything equivalent thereto. The hardware switch setting does not indicate whether or not a processor can generate response signals (which is equivalent to fault detection in the present invention). The hardware switch signal is an enable signal that determines whether or not a particular processor is able to receive updated software. Therefore, fault detection (of the present invention), and the hardware switch setting (of Warmink) are not equivalent as argued by the Examiner.

The Examiner correctly points out that Warmink, "depending on the status of the software, i.e. whether it is current or older, it (sic) then implements the upgrade". This is a correct characterization of Warmink, and serves to highlight an important difference between Warmink and the present invention. In the present invention, the software on the first processor does not need to be checked, and the age of the software does not need to be checked. In the present invention, the age or version of the software in the first processor does not matter. What does matter in the present invention is whether or not the first processor can generate response signals. Software in the first processor is reinstalled or updated when the first processor cannot generate response signals (equivalent to a fault being detected). In the present invention, fault detection is required for resetting and installing new (or the same) software.

In summary, Warmink does not teach fault detection. Checking the state of the hardware switch or checking for current software is not equivalent to fault detection. Hence, the rejections of claims 1 and 12 must be withdrawn.

Regarding argument (2), the Examiner argues that Warmink teaches "transmitting data when signal pack did not receive signal (response not detected) in col. 2, lines 62-67", and that this is equivalent to transmitting a compulsory reset signal when a response is not detected. This is also in error.

Col. 2, lines 62-67 of Warmink describes the action of a "system signal" (e.g. a reset signal , see col. 2, lines 32-33, according to the Examiner), which triggers the circuit packs to "exchange version information". After the exchange of version information, the circuit packs can determine which circuit pack has newest data, and which has older or less preferred data. Warmink specifically teaches that the circuit pack with the newer (or more preferred) data provides the data to the other circuit packs. A circuit pack does not require the system signal in order to transfer data to the other circuit packs. Warmink specifically states "The transfer of data can be from either a circuit pack that received the signal which initiated the process or from a circuit pack that did not receive a signal...". The "signal" herein is the system signal that initiated the exchange of version information among the circuit packs. So, in Warmink, once a system signal is given, the circuit packs exchange version information and the circuit pack with the newest (or most preferred) software transmits to the others. If a circuit pack does not receive the original system

signal, it can still participate and transmit software if it has the newest software. However, failure to receive the system signal is not a trigger for a circuit pack to transmit software. By comparison, in the present invention, lack of reception of the response signal is a trigger for the second processor to reset and reinstall software in the other processor. This a fundamental difference between the present invention and Warmink.

Additionally, it should be understood that the system signal of Warmink is not the same as the response signal in the present invention. The system signal of Warmink initiates the version exchange; the response signal is required (repeatedly) to prevent the second processor from resetting and updating the first processor. The system signal of Warmink and the response signal of the present invention are completely different.

Also, it should be understood that the system signal of Warmink is not a compulsory reset signal. A compulsory reset signal forces a processor to reset, even if it is "hung up" in a fault state. The system signal is an instruction that causes the circuit packs to exchange version information and exchange data where appropriate. The system signal is not a reset signal, and it cannot cause a reset of a "hung" processor stuck in a fault condition. Consequently, Warmink does not teach or suggest "transmitting a compulsory reset signal when a response cannot be detected". Warmink does not teach any kind of action triggered by a lack of response signal, and Warmink does not teach a compulsory reset signal. Therefore, the argument (2) made by the Examiner is wrong and the rejections of claims 1 and 12 must be withdrawn for this additional reason.

Regarding claim 2, Warmink does not teach that a second processor "transmits a compulsory reset signal to said first processor when said response pulse can not be detected within a predetermined period."

In reference to claims 3 and 5, Warmink does not teach or suggest an activating pulse that causes a circuit pack or processor to transmit a reset signal. In col. 4, lines 20-25, Warmink discloses that the hardware switch enables or disables the updating function. This is different from the activating pulse, which triggers the second processor to start the compulsory reset signal. Furthermore, Warmink does not teach that a second processor transmits "said reset signal in response to said activation pulse outputted from said activation pulse generating circuit." These claims are not anticipated by Warmink for this additional reason.

Regarding claims 4, 6, 7 9, and 11 Warmink does not teach "a buffer which transiently stores said program for executing said update control, wherein said second processor transfers said program stored in said buffer to said first processor, after an operation of storing said program in said buffer is completed."

Regarding claims 8 and 10, Warmink does not teach "wherein said activation monitoring circuit transmits a compulsory reset signal to said second processor when said activation response pulse can not be detected within the predetermined period."

In conclusion, it is clear that Warmink is quite different from the present invention. In the present invention, a compulsory reset is performed and software is reinstalled in case a response signal is not received. In the present invention, the first processor must repeatedly transmit a response signal or otherwise it will be reset and software reinstalled. By comparison, Warmink teaches that the system signal causes the circuit packs to compare software versions and update according to which circuit pack has the most recent software. The two techniques are very different. The Examiner appears to have confused the nature of the system signal of Warmink (which initiates version exchange) , the response signal of the present invention (which indicates that the first processor has not experienced a fault and is still operating normally), and compulsory reset signal (which forces the first processor to reset even if it is stuck in a fault condition).

Additionally, it should be understood that Warmink does not teach or suggest any method or technique for reinstalling software in a circuit pack experiencing a fault (i.e. a nonresponsive circuit pack). In Warmink, a circuit pack experiencing a fault will be unable to exchange version information or transmit or receive software. Warmink does not teach any method or system for how to reset and reinstall software in a circuit pack experiencing a fault. The system signal of Warmink is not a reset signal and cannot be used to reset a processor in a fault condition.

Claims 13 and 14 were rejected under 35 USC 103(a) as being unpatentable over Warmink in view of US Patent 5,884,091 to Ghori et al. This rejection is traversed.

Claims 13 and 14 depend on claim 12, and Ghori does not make up for the deficiencies of Warmink. Ghori, like Warmink, fails to teach fault detection, and fails to teach a second processor transmitting to a first processor a compulsory reset signal in

response to not receiving a response signal from the first processor (i.e. when a fault is detected). Hence, Ghori cannot be relied upon by the Examiner to provide these essential features lacking in Warmink. Accordingly, no conceivable combination of Warmink and Ghori can possibly produce the present invention as claimed. Therefore, claims 13 and 14 would not be obvious over a combination of Ghori and Warmink.

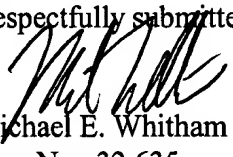
In addition, claim 14 requires that "said activation control circuit executes a stop control of said second processor, when said activation response pulse can not be detected within a predetermined period." Neither Warmink nor Ghori teach this feature.

In view of the foregoing, it is respectfully requested that the application be reconsidered, that claims 1-15 be allowed, and that the application be passed to issue.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

A provisional petition is hereby made for any extension of time necessary for the continued pendency during the life of this application. Please charge any fees for such provisional petition and any deficiencies in fees and credit any overpayment of fees for the petition or for entry of this amendment to Attorney's Deposit Account No. 50-2041 (Whitham, Curtis & Christofferson P.C.).

Respectfully submitted,



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THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE

fau·ces (fô′sēz) *pl.n.* The space between the mouth and pharynx bounded by the soft palate, the base of the tongue, and the palatine arches. [Latin *faucēs*, throat.]

fau·cet (fô′sĭt) *n.* A device for drawing a flow of a liquid from a pipe, drum, or other reservoir. [Middle English *faucet*, from Old French *fausset*, plug, from *fausser*, damage, break into, make false, from Late Latin *falsāre*, falsify, from Latin *falsus*, FALSE.]

faugh (fô) *interj.* Used to express contempt, disgust, or dismissal. [Imitative.]

Faulk·ner (fôk′nər), **William Harrison.** Also **Falk·ner.** 1897–1962. American author of novels and short stories.

fault (fôlt) *n.* **1.** Something that prevents perfection, as: **a.** A flaw, blemish, or defect. **b.** A mistake; error. **c.** An offense, transgression, or minor vice. **2.** Responsibility for such a mistake or offense; culpability. **3.** *Geology.* A break in the continuity of a rock formation, caused by a shifting or dislodging of the earth's crust, in which adjacent surfaces are differentially displaced parallel to the plane of fracture. Also called "rift." **4.** *Electricity.* A defect in a circuit or wiring caused by imperfect connections, poor insulation, grounding, or shorting. **5.** *Sports.* A bad service, as in tennis. **6.** *Hunting.* The loss of the scent by a dog or dogs. **7.** *Obsolete.* A lack or deficiency. —See Synonyms at **blame, blemish.** **—at fault.** **1.** Deserving of blame; guilty. **2.** Confused and puzzled. **3.** *Hunting.* Unable to recapture the scent of the game. **—find fault.** To seek, find, and complain about faults; to carp. **—in fault.** Deserving of blame; guilty. **—to a fault.** Excessively. —*v.* **faulted, faulting, faults.** —*tr.* **1.** To find a fault in; criticize or blame. See Usage note below. **2.** *Geology.* To produce a fault in; fracture. —*intr.* **1.** To commit a fault or error. **2.** *Geology.* To shift so as to produce a fault. [Middle English *faute*, from Old French, from Vulgar Latin *fallita* (unattested), feminine past participle of Latin *fallere*, to fail, deceive. See **fail.**]

Synonyms: *fault, failing, weakness, frailty, foible, vice.* These nouns denote imperfection or deficiency of character or soundness in persons. *Fault* usually refers to a specific quality or trait that detracts in large or small measure from excellence. *Failing* more often implies a lack that keeps a person from measuring up to a high standard of behavior or performance in general or in specific circumstances. *Weakness* suggests deficiency of moral or intellectual strength. It is closely related to, but stronger than, *frailty*, which implies inability to withstand temptation. Even weaker in imputing censure is *foible*, which refers to a minor fault, shortcoming, or eccentricity that is easily overlooked and may even be endearing. *Vice* can refer to a moral flaw or weakness that inclines one to evil or, in a weaker sense, to any defect of character.

Usage: *Fault*, as a transitive verb equivalent to find a fault in or criticize, is now widely used but still not as well established on a formal level as the equivalents cited. This use was long rare or dialectal in British English; although frequently attested as an Americanism since the mid-19th century, it has been much censured in its more recent vogue. The examples that follow are acceptable to 52 per cent of the Usage Panel: *One cannot fault his performance. To fault him is grossly unfair.*

fault-find·er (fôlt′fīn′dər) *n.* One who seeks out faults; a chronic complainer.

fault-find·ing (fôlt′fīn′dĭng) *n.* Petty criticism; a carping. —*adj.* Disposed to find trivial faults; captious.

fault·less (fôlt′lĭs) *adj.* Without fault; blameless or flawless. **—fault′less·ly** *adv.* **—fault′less·ness** *n.*

fault plane. The plane along which the break or shear of a geological fault occurs.

fault·y (fôl′tē) *adj.* **-ier, -iest.** **1.** Containing a fault or faults; imperfect or defective. **2.** *Obsolete.* Deserving of blame; guilty. **—fault′i·ly** *adv.* **—fault′i·ness** *n.*

faun (fôn) *n. Roman Mythology.* One of a group of rural deities represented as having the body of a man and the horns, ears, tail, and sometimes legs of a goat. [Middle English *faun*, from Latin *Faunus*, FAUNUS.]

fau·na (fô′nə) *n., pl.* **-nas** or **-nae** (-nē′). Animals collectively; especially, the animals of a particular region or time. [New Latin, from Latin *Fauna*, sister of Faunus, from *Faunus*, FAUNUS.]

Fau·nus (fô′nəs). *Roman Mythology.* A god of nature and fertility, worshiped by shepherds and farmers, and identified with the Greek Pan. [Latin *Faunus*†.]

Fau·ré (fō-rā′), **Gabriel Urbain.** 1845–1924. French composer.

Faust (foust). *Latin* **Faust·us** (fou′stəs, fô′-). A magician and alchemist, hero of several dramatic works (notably by Marlowe and Goethe), who sells his soul to the devil in exchange for power and worldly experience. [German, after Johann *Faust*, 16th-century magician and astrologer.] **—Faust′i·an** (fou′stē-ən) *adj.*

fau·teuil (fō′tĭl; *French* fō-tœ′y′) *n.* An armchair. [French, from Old French *faudestuel*, *faldestoel*, folding stool, from Germanic. See **pet-**[3] in Appendix.*]

faux pas (fō pä′) *pl.* **faux pas** (fō päz′; *French* fō pä′). A social blunder; a breach of etiquette. [French, "false step."]

fa·va bean (fä′və). A **broad bean** *(see).* [Italian *fava*, from Latin *faba*, bean (see **bha-bhā-** in Appendix*) + BEAN.]

fa·ve·o·late (fə-vē′ə-lāt′) *adj.* Pitted with cavities or cells; honeycombed. [From New Latin *faveolus*, diminutive of Latin *favus*†, honeycomb.]

fa·vo·ni·an (fə-vō′nē-ən) *adj.* **1.** Of the west wind. **2.** Mild; benign. [Latin *Favōniānus*, from *Favōnius*†, west wind.]

fa·vor (fā′vər) *n.* Also *chiefly British* **fa·vour.** **1. a.** A gracious, kind, or friendly attitude. **b.** An act evidencing such an attitude; an act of kindness: *Will you do me a favor?* **c.** *Often plural.* An act requiring sacrifice or special generosity; an indulgence. **2. a.** Friendly regard shown by a group or a superior; partiality. **b.** A state of being held in such regard. **3.** Approval or support; sanction. **4.** Partiality; favoritism. **5.** *Usually plural.* Sexual privileges, as granted by a woman. **6. a.** Something given as a token of love, affection, or remembrance. **b.** A small, decorative gift, such as a paper hat, given to each guest at a party or ball. **7.** Advantage; benefit: *a balance in our favor.* **8.** *Obsolete.* A communication. **9.** *Obsolete.* **a.** Aspect or appearance. **b.** Countenance; visage; face. **c.** One part of the face; a feature. **—in favor of.** **1.** In support of; approving. **2.** To the advantage of. **3.** Inscribed or made out to. —*tr.v.* **favored, -voring, -vors.** Also *chiefly British* **fa·vour.** **1.** To perform a kindness for; oblige. **2.** To regard with approval; to like. **3.** To be partial to; indulge. **4.** To be or tend to be in support of. **5.** To make easier or more possible; to aid. **6.** To resemble in appearance: *"Annie May favors her father and his people, who were all small and lightly built"* (James Agee). **7.** To treat with care; be gentle with: *The soldier favored his wounded leg.* —See Usage note at **oblige.** [Middle English *favour*, from Old French, from Latin *favor*, from *favēre*, to favor, be favorable. See **ghow-ə-** in Appendix.*] **—fa′vor·er** *n.* **—fa′vor·ing·ly** *adv.*

fa·vor·a·ble (fā′vər-ə-bəl, fāv′rə-) *adj.* **1.** Advantageous; helpful. **2.** Propitious; encouraging. **3.** Manifesting approval; commendatory. **4.** Embodying or conceding that which was desired or requested: *a favorable reply.* **5.** Indulgent or partial. **—fa′vor·a·ble·ness** *n.* **—fa′vor·a·bly** *adv.*

Synonyms: *favorable, propitious, auspicious, benign, conducive.* These adjectives describe what is beneficial or points to a successful outcome. *Favorable* is the widest in application. It can refer to persons, conditions, circumstances, or omens that contribute in some way to the attainment of a goal: *a favorable breeze; a favorable sign. Propitious* applies to persons or things that are favorably disposed toward someone or something or that give concrete assistance. Often it refers to time or circumstances considered as omens of, or contributors to, success: *a political climate propitious to a summit meeting. Auspicious* refers to things that, by their favorable nature, presage good fortune: *an auspicious start for the project. Benign* refers to persons or things favorably disposed toward one or exerting a beneficial influence. *Conducive* applies to things that lead or contribute to an end, usually a desirable result: *a neighborhood program conducive to good will in the community.*

fa·vored (fā′vərd) *adj.* **1.** Treated or thought of with kindness or liking; indulged; privileged. **2.** Having special talents, gifts, or beauty. **3.** Having a physical appearance of a specified kind. Used in combination: *well-favored; ill-favored.*

fa·vor·ite (fā′vər-ĭt, fāv′rĭt) *n.* **1. a.** A person or thing liked or preferred above all others. **b.** A person especially indulged by a superior: *a favorite of the king.* **2.** A contestant or competitor regarded as most likely to win: *the favorite in the fifth race at Belmont.* —*adj.* Liked or preferred above all others; regarded with special favor. [Obsolete French *favorit*, from Italian *favorito*, past participle of *favorire*, to favor, from *favore*, favor, from Latin *favor*, FAVOR.]

favorite son. A man nominated as a Presidential candidate, often merely as an honorary gesture, by the delegates from his own constituency at a national political convention.

fa·vor·it·ism (fā′vər-ə-tiz′əm, fāv′rə-) *n.* **1.** A display of partiality, especially when unjust, toward a favored person or group. **2.** The state of being held in special favor.

fa·vus (fā′vəs) *n.* A chronic fungous infection of the scalp and nails. [New Latin, from Latin, honeycomb. See **faveolate.**]

Fawkes (fôks), **Guy.** 1570–1606. English Roman Catholic conspirator in the Gunpowder Plot.

fawn[1] (fôn) *intr.v.* **fawned, fawning, fawns.** **1.** To exhibit affection, as in the manner of a dog wagging its tail and whining. Used with *on* or *upon.* **2.** To seek favor or attention by flattery and obsequious behavior. [Middle English *faunen*, Old English *fagnian*, *fægnian*, to rejoice, from *fægen*, FAIN.] **—fawn′er** *n.* **—fawn′ing·ly** *adv.*

fawn[2] (fôn) *n.* **1.** A young deer, especially one less than a year old. **2.** Grayish yellowish brown to light grayish or moderate reddish brown, or moderate yellowish pink. See **color.** [Middle English *foun*, *fawn*, from Old French *foun*, *feon*, offspring of an animal, from Vulgar Latin *fētō*, from Latin *fētus*, offspring, a giving birth. See **dhēi-** in Appendix.*]

fawn lily. Any of several North American plants of the genus *Erythronium;* especially, *E. grandiflorum*, of western North America, having nodding yellow flowers. This species is also called "glacier lily," "snow lily."

fay[1] (fā) *v.* **fayed, faying, fays.** —*tr.* To join (beams, for example) closely or tightly. —*intr.* To be fitted or joined tightly. [Middle English *feien*, Old English *fēgan*. See **pag-** in Appendix.*]

fay[2] (fā) *n.* A fairy, sprite, or elf. [Middle English *faie*, one possessing magical powers, from Old French *faie*, *fae*, from Latin *fāta*, the Fates, plural of *fātum*, FATE.]

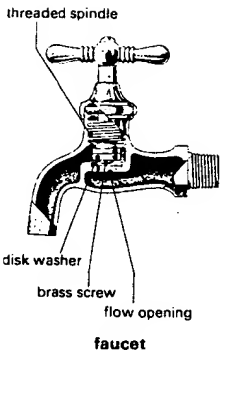
fay[3] (fā) *n. Obsolete.* Faith. Used in oaths: *"sirrah, by my fay, it waxes late"* (Shakespeare). [Middle English *fai*, *fei*, *feith*, FAITH.]

Fay (fā). Also **Faye.** A feminine given name. [Middle English, either from *fai*, FAY (faith), or from *faie*, FAY (fairy).]

Fa·yal. See **Faial.**

fay·al·ite (fā′ə-līt′, fī-ăl′īt′) *n.* A yellowish to black mineral, $FeSiO_4$, of the olivine group. [German *Fayalit* : *Fayal*, German form for FAIAL (where it was first found) + -ITE.]

Fay·ette (fā-ĕt′, fā′ĭt). A village of west-central New York, site



faucet

Fault

From Wikipedia, the free encyclopedia.

There are various types of **faults**:

- In document ISO/CD 10303-226, a **fault** is defined as an abnormal condition or defect at the component, equipment, or sub-system level which may lead to a failure.

  According to Federal Standard 1037C, the term *fault* has the following meanings:

1. An accidental condition that causes a functional unit to fail to perform its required function.
2. A defect that causes a reproducible or catastrophic malfunction. A malfunction is considered reproducible if it occurs consistently under the same circumstances.
3. In power systems, an unintentional short-circuit, or partial short-circuit, between energized conductors or between an energized conductor and ground. A distinction can be made between symmetric and asymmetric faults.

   See also: Defect, Computer bug

- A **geologic fault** is a crack or joint between two blocks of earth (usually tectonic plates) that are moving or have moved relative to each other. Earthquakes often occur along faults.

- A **fault**, in animal breeding, is a conformation point whose state or quality falls outside of the acceptable range for the attribute being judged.

- In **tennis**, a fault could be either a foot fault or a service fault, where an aspect(s) of the server's serve is not in line with the rules of the game.

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Categories: Disambiguation